



IN THE CLAIMS:

Rewrite the pending claims and add new claims as follows:

28. (Currently amended) A method of fabricating a staggered torsional electrostatic combdrive, said method comprising ~~the steps of:~~

deep trench etching a stationary combteeth assembly in a first wafer;

bonding a second wafer to said first wafer to form a sandwich including said first wafer, an oxide layer, and said second wafer;

forming a moving combteeth assembly in said second wafer, said moving combteeth assembly including a paddle and a torsional hinge, said moving combteeth assembly being separated from said first wafer by said oxide layer; and

after said forming, removing exposed portions of said oxide layer to release said staggered torsional electrostatic combdrive moving combteeth assembly.

29. (Currently Amended) The method of claim 28 wherein said forming step includes a first step of etching an external surface oxide layer and a second step of etching said second wafer to form said moving combteeth assembly.

30. (Currently Amended) The method of claim 28 further comprising the step of A method of fabricating a staggered torsional electrostatic combdrive, said method comprising:

deep trench etching a stationary combteeth assembly in a first wafer;

bonding a second wafer to said first wafer to form a sandwich including said first wafer, an oxide layer, and said second wafer;

forming a moving combteeth assembly in said second wafer, said moving combteeth assembly including a paddle and a torsional hinge, said moving combteeth assembly being separated from said first wafer by said oxide layer;

after said forming, removing exposed portions of said oxide layer to release said moving combteeth assembly; and

depositing a reflective film on said paddle.

31. (New) The method of claim 28 further comprising depositing a multilayer optical filter on said paddle.

32. (New) The method of claim 28 wherein the deep trench etching includes etching 100-micron-deep trenches using a deep reactive-ion etcher.

33. (New) The method of claim 28 further comprising polishing the second wafer after the bonding to leave a predetermined thickness of the second wafer above the oxide layer.

34. (New) The method of claim 33 further comprising oxidizing the first wafer and the second wafer after the bonding.

35. (New) The method of claim 28 further comprising forming an alignment window in the second wafer.

36. (New) The method of claim 36 further comprising aligning the stationary combteeth assembly and the moving combteeth assembly.

37. (New) The method of claim 28 further comprising etching a backside hole in the first wafer, wherein the backside hole exposes the paddle.

38. (New) The method of claim 37, further comprising depositing an aluminum film on the paddle through the backside hole in the first wafer.

39. (New) The method of claim 28, wherein the removing includes removing a sacrificial portion of the oxide layer, the sacrificial portion including portions of the oxide layer under the moving combteeth assembly and paddle.

40. (New) The method of claim 28 further comprising attaching a transparent plate to an outer surface of the staggered torsional electrostatic combdrive.

41. (New) The method of claim 30 wherein said forming includes first etching an external surface oxide layer and second etching said second wafer to form said moving combteeth assembly.

42. (New) The method of claim 30 wherein the deep trench etching includes etching 100-micron-deep trenches using a deep reactive-ion etcher.

43. (New) The method of claim 30 further comprising polishing the second wafer after the bonding to leave a predetermined thickness of the second wafer above the oxide layer.

44. (New) The method of claim 43 further comprising oxidizing the first wafer and the second wafer after the bonding.

45. (New) The method of claim 30 further comprising forming an alignment window in the second wafer.

46. (New) The method of claim 45 further comprising aligning the stationary combteeth assembly and the moving combteeth assembly.

47. (New) The method of claim 30 further comprising etching a backside hole in the first wafer, wherein the backside hole exposes the paddle.

48. (New) The method of claim 30, wherein the removing includes removing a sacrificial portion of the oxide layer, the sacrificial portion including portions of the oxide layer under the moving combteeth assembly and paddle.

49. (New) The method of claim 30 further comprising attaching a transparent plate to an outer surface of the staggered torsional electrostatic combdrive.

50. (New) The method of claim 30 wherein the depositing includes depositing an aluminum film on the paddle through a backside hole in the first wafer.